

in the right-of-way) or civil/structural engineer design the wall(s) specifically for the existing site conditions. Again, the City may require a soils report, prepared by a licensed civil engineer specialized in soil mechanics or a licensed geotechnical engineer, depending on soil conditions at the site.

VIII. REINFORCING STEEL

Use reinforcing steel bars which conform to ASTM specification A615-85, Grade 40 or 60. When you can't use one continuous bar, you must lap or splice bars a distance of at least 40-bar diameters (i.e. 15" for #3 bars, 20" for #4 bars, 25" for #5 bars, 30" for #6 bars). The required minimum lap splice for bars of different size to be based on the diameter of the larger size bar. Bends in the reinforcing steel must conform to the Manual of Standard Practice, American Concrete Institute. Bending for hooks must be at least a distance equal to four bar diameters. All required bar embedment dimensions are clear distances to outside of bar. Spacing for parallel bars is center to center of bars.

Place two or more bars longitudinally in the footing (See Tables for number of bars needed). For 6-inch or 8-inch blocks, place one #3 bar longitudinally in the center of the wall in a bond beam block every 16 inches of wall height as the blocks are laid up. For 12-inch blocks, place one #4 bar longitudinally in the center of the wall in a bond beam block every 16 inches of wall height as the blocks are laid up.

IX. JOINTS

Vertical control joints are needed at intervals of not more than 32 feet. Joints must resist shear and other lateral forces and still permit longitudinal movement. Vertical expansion joints are needed at intervals of not more than 96 feet (See Drawing CVCS 34).

X. STEP FOOTINGS

Base the footing dimensions and the amount of reinforcing steel on the maximum height of the wall on either side of a step in the footing elevation. The construction of the step must follow the details on Drawing CVCS 34.

XI. BACKFILL

Do not place backfill material against a masonry retaining wall until the grout has either reached design strength or has cured for a minimum of 28 days. Compaction of backfill material by either jetting or ponding with water is not permitted. Each layer of backfill must be moistened and thoroughly tamped, rolled or otherwise compacted until the relative compaction is not less than 90%. If the wall is within the City right-of-way, subject to vehicular surcharge or

Revised:	Original approval date:	CITY OF CHULA VISTA	
	Redrawn By: CVM Date: 9-25-01	PUBLIC WORKS DEPARTMENT	
	<i>Clifford Swanson</i>	RETAINING WALL REQUIREMENTS PUBLICATION OUTLINES	CVCS 30 SH. 4 OF 6
	CITY ENGINEER Date: 12/10/01		
	<i>Brad Kemp</i>		
	BUILDING OFFICIAL Date: 12/10/01		